REMARKS

Claims 1-16 are pending in the present Application. Applicant has amended claims 1, 7, 10 and 16. Applicant has also canceled claims 9 and 16. Consequently, claims 1-8 and 10-15 remain pending in the present Application.

Applicant has amended claim 7 to be consistent with base claim 1. Consequently, Applicant respectfully submits that the scope of claim 7 has not changed due to the amendment to claim 7. Applicant has amended claims 1 and 10 to correct minor grammatical errors. Applicant respectfully submits that this amendment to claims 1 and 10 do not narrow the scope of claims 1 and 10. Applicant has also amended claim 1 to recite that the steps of the method are performed in sequence. This allows the scene on the display to be rendered pixel by pixel, preferably in raster order, rather than object by object. Similarly, Applicant has amended claim 10 to more clearly recite that the frame are rendered pixel by pixel, rather than object by object. Support for the amendment to claims 1 and 10 can be found in the specification, page 13, line 16-page 14, line 6 and Figure 5 of the present application. Accordingly, Applicant respectfully submits that no new matter is added.

In the above-identified Office Action, the Examiner rejected claims 1, 2, 4, 9-11 and 16 under 35 U.S.C. § 103 as being obvious in light of any one of U.S. Patent No. 4,918,626 ("Watkins") in view of U.S. Patent No. 5,684,919 ("Foran"). The Examiner also rejected claims 3, 5-8 and 12-15 under 35 U.S.C. § 103 as being unpatentable over Watkins in view of Foran in further view of U.S. Patent No. 5,872,902 ("Kuchkuda"). The Examiner also provisionally rejected claims 1-16 claiming the same invention as U.S. Patent Application serial No. 09/239,413.

The Examiner also provisionally rejected claims 1-16 as claiming the same invention as U.S. Patent Application serial No. 09/239,413. Applicant notes that the above-referenced co-pending patent application has been allowed to go abandoned. Consequently, Applicant respectfully submits that the Examiner's provisional rejection is moot.

The Examiner also rejected Claims 1, 2, 4, 9-11 and 16 under 35 U.S.C. § 103 as being obvious in light of Watkins in view of Foran. Applicant respectfully traverses the Examiner's rejection.

Independent claim 1 recites a method for generating a graphical image on a display from data describing at least one object. The display includes a plurality of positions, each of which has an area. The method recited in claim 1 includes a series of "sequential" steps. Because the steps are sequential, it is clear that the method recited in claim 1 renders the objects pixel by pixel, preferably in raster order. Thus, a portion of all of the objects intersecting a particular position, or pixel, are rendered. All of the objects intersecting the next pixel are then rendered. Similarly, claim 10 recites a system that renders the object(s) in raster order. Because the objects are rendered pixel by pixel, preferably in raster order, only one pass through the data for the objects is required. Specification, page 18, lines 5-6. Thus, linked lists need not be used and the memory and resources required for linked lists are freed. Specification, page 18, lines 6-10.

In contrast, Watkins in view of Foran fails to teach a method which has certain sequential steps and a system in which the objects are rendered pixel by pixel. Watkins describes a system which renders objects polygon by polygon, rather than pixel by pixel. This can be seen in Fig. 6 of Watkins and the accompanying discussion. In particular, after converting the data for a portion of a polygon to pixel data, it is determined whether the polygon has been completely converted. Watkins, Fig. 3, item 76 and on col. 11, lines 6-13. If the polygon has not been completed, processing of the polygon continues. However, if the polygon has completed, then the prior steps used in rendering the polygon are repeated for a new polygon. Watkins, col. 11, lines 14-24. Thus, Watkins treats all of the pixels within a particular object, then moves to the next object. This is in contrast to the method recited in claim 1, which in step (d) repeats steps (a)-(c), which includes antialiasing for a particular object intersecting a position, for remaining objects before repeating

steps (a) through (d) for other positions. These teachings of Watkins are also different from the recited system of claim 10 which renders the objects in raster order (i.e. pixel by pixel). Thus, Watkins cannot teach or suggest the method and system recited in claims 1 and 10.

The teachings of Foran fail to remedy the defect of Watkins. Applicant agrees that Foran discusses using masks to perform antialiasing. However, Applicant can find no mention in Foran of rendering objects in raster order or pixel by pixel rather than object by object. Similarly, Applicant can find no mention in Foran of performing certain steps of a method sequentially, which results in the objects being rendered pixel by pixel rather than object by object. Consequently, Foran cannot remedy the defect of Watkins. Thus, any combination of Watkins in view of Foran must also render the scene object by object. Consequently, Watkins in view of Foran cannot teach or suggest the method of claim 1, which performs certain steps in a certain sequence, or the system of claim 10, which renders objects in raster order. Accordingly, Applicant respectfully submits that claims 1 and 10 are allowable over the cited references.

Claims 2 and 4 depend upon independent claim 1. Claim 11 depends on independent claim 10. Consequently, the arguments herein apply with full force to claims 2, 4, and 11. Accordingly, Applicant respectfully submits that claims 2, 4, and 11 are also allowable over the cited references.

The Examiner also rejected claims 3, 5-8 and 12-15 as being unpatentable over Watkins in view of Foran in further view of Kuchkuda.

Claims 3 and 5-8 depend upon independent claim 1. Claims 12-15 depend upon independent claim 10. Consequently, the arguments herein with respect to Watkins and Foran apply with full force to claims 3, 5-8 and 12-15. In particular, Watkins in view of Foran fails to teach or suggest sequential steps of a particular method, the result of which is rendering objects pixel by pixel rather than object by object, or a system which renders objects in raster order.

Kuchkuda fails to remedy the defects of Watkins in view of Foran. In particular, the cited

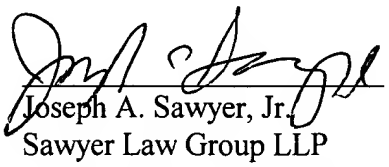
portions of Kuchkuda fail to mention performing a method for antialiasing including the steps of determining intersections, providing masks for the areas of pixels intersected and performing antialiasing all performed in a particular order. Similarly, the cited portions of Kuchkuda also fail to mention a system which renders objects in raster order. Consequently, any method or system made using the teachings of Watkins in view of Foran in further view of Kuchkuda would fail to mention performing a method for antialiasing including determining intersections, providing masks for the areas of pixels intersected and performing antialiasing in a particular order. Accordingly, Applicant respectfully submits that claims 3, 5-8 and 12-15 are allowable over the cited references.

Accordingly, for the above-mentioned reasons, Applicant respectfully submits that the claims are allowable over the cited reference. Consequently, Applicant respectfully requests reconsideration and allowance of the claims as currently presented.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made"**.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issue remain, the Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,



Joseph A. Sawyer, Jr.
Sawyer Law Group LLP
Attorney for Applicant(s)
Reg. No. 30,801
(650) 493-4540

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Amended) A method for generating a graphical image on a display from data describing at[n] least one object, the display including a plurality of positions, each of the plurality of positions having an area, the method comprising the sequential steps of:

(a) determining if a portion of an object of the at least one object intersects a current position of the plurality of positions and providing an output if the portion intersects the current position;

(b) providing a mask for the portion if it is determined that the portion intersects the current position, the mask indicating an extent to which the one portion occupies the area of the current position;

(c) using the mask to provide antialiasing;

(d) repeating steps (a)-(c) for each remaining object of the at least one object; and

(e) repeating steps (a) through (d) for each remaining position of the plurality of positions.

7. (Amended) The method of claim 6 wherein the repeating step (d) further includes the step of:

(e1) repeating steps (a) through (c) and steps (f) through (g) for each remaining object.

10. (Amended) A system for generating a graphical image on a display from data describing at[n] least one object, the system comprising:

a display including a plurality of positions, each of the plurality of positions having an area;

a processor block coupled with the display, the processor block for determining if a portion of each of the at least one object intersects a current position of the plurality of positions and providing an output if the portion intersects the current position;

an interpolator coupled with the processor block, the interpolator for interpolating the data and providing a mask for the portion, the mask indicating an extent to which the portion occupies the area of the current position; and

means for utilizing the mask to provide antialiasing;

wherein the [plurality of positions]at least one object are rendered in raster order.